

# NEWS OPINION

## Don't look back

After Vista's shambolic development, Microsoft needs to get the next version of Windows right. Paul Nesbitt asks if an overhaul might work against the company

**N**ow that Vista has been shipped, what's next for Microsoft and Windows? The Microsoft rumour mill is already looking forward to what observers predict will be the most dramatic change to Windows ever.

We know that the next major operating system upgrade is codenamed Vienna, and recent off-the-cuff remarks by a senior Microsoft executive (see *News*, page 194) suggest that the company is hard at work on improving the two main gripes people have with Windows: its poor interface and instability.

To address these, Microsoft will have to ditch backwards compatibility with previous versions of Windows, which is an enormously risky strategy that would require Windows to compete on its own technical merits rather than relying on its key competitive advantage of being the incumbent standard.

### OVIENNA

Microsoft's corporate vice-president of development for the Windows Core Operating System Division, Ben Fathi, was recently asked during a US conference what Vienna's most compelling features would be. He alluded to a completely new interface and support for 'hypervisors'. A hypervisor is a high-performance platform that enables multiple operating systems to run on a PC at the same time. This is possible due to the use of virtualisation, support for which is already included in modern processors from Intel and AMD.

Introducing hypervisors to Vienna will enable Microsoft to ditch backwards compatibility for old Windows applications. Until now, Microsoft's approach has been zealously to ensure that successive Windows releases can run legacy code.

### FUNDERS, KEEPERS

Microsoft's grip on the operating system business is underwritten by the enormous investment its customers have made in Windows applications, whether it be copies



of Office or esoteric bespoke programs that were originally developed for old versions of Windows. Maintaining backwards compatibility has made successive versions of Windows ever more complex, buggy, unstable, slow and bloated with legacy code.

The tortuous process involved in the development of Vista, which was years late, was a clear sign that Microsoft needed to change track radically. Company executives, from CEO Steve Ballmer down, have said on record that the Vista experience can never be repeated.

The successful Windows business model has been steadily undermined by technological weaknesses. Due to Windows' disastrous vulnerability to malware, Microsoft was forced to remove some legacy code to secure Windows XP SP2 and then Vista. This also meant that some old applications no longer worked. As a consequence, many customers have declined to upgrade to newer versions, and Windows' iron lock is weakening.

Microsoft executives have gazed enviously at Apple (see *News*, page 197), which has reaped the technological benefits of ditching its creaky old Mac OS code base when it launched Mac OS X in 2001. Since then the company has been able to release new versions of its operating system regularly, unencumbered by legacy code.

### BEST OF BOTH WORLDS

With Vienna, Microsoft aims to have the best of both worlds. The company is working on a completely new, slimline and modular codebase. In effect this will be a new operating system that will run faster, more reliably and more securely. However, this could make it vulnerable to competing operating systems such as Linux and Mac OS X. If you have to rewrite your old applications to run on a new operating system, why not look at the alternatives?

Microsoft is also believed to be working on a radically improved user interface for Windows. According to industry insiders Vienna will scrap the Start menu, taskbars, toolbars, pull-down menus and Internet Explorer-based file navigation interface in favour of a minimalist look. Microsoft's perennial favourite technology, speech recognition, will reportedly be central to the new Vienna user interface.

The Windows interface is essentially derivative of 1984's Mac OS, from new nearly a quarter of a century ago. Its metaphor of files, folders and applications is growing old and urgently requires a complete rethink to cope with the complexities of today's computing. But again, such a radical departure would make Microsoft even more vulnerable to losing long-term customers to a rival operating system. If you have to relearn how

you operate your PC, why not consider what others have to offer?

The miserable failure in the 1990s of new operating systems such as BeOS and NeXT OS serves as a warning to Microsoft about how important backward compatibility has been to Windows' success. BeOS and NeXT OS ran faster and more reliably than Windows, and introduced exciting innovations years ahead of anything in Windows. Both failed because they lacked Windows compatibility.

### BACK TO THE FUTURE

Building in support for hypervisors will enable Microsoft to offer customers a brand new operating system while allowing old Windows applications to run in earlier versions of Windows. Besides, it's not as if Microsoft will be pioneering a difficult new technology that might not work. IBM has been doing this for years on its mainframes, and owners of Intel-based Macs can already run a virtualisation program called Parallels that enables Macs to run Windows applications. Even more impressively, the latest version of Parallels includes a feature called 'coherence', which enables Mac users to open Windows applications (along with Windows running in the background) without leaving the Mac interface. The applications behave as if they were native Mac programs.

If Mac users can run existing Windows applications seamlessly and securely, it ought not to be beyond Microsoft to create a new version of Windows that supports legacy applications while offering considerable improvements in performance and user interface.

Microsoft could even enable Windows users to run applications written for other operating systems and access data stored in redundant formats that have been inaccessible for years. You could relive the experience of running an Atari or Commodore computer from the early days of the PC revolution. The future could include yesterday's vision of tomorrow. ☐